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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,390	01/13/2004	Seung-Do Han	0630-1928P	9970
2292	7590	03/23/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			NGUYEN, HANH N	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/755,390

Applicant(s)

HAN ET AL.

Examiner

Nguyen N. Hanh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) 2-14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed ON 1/5/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. An English Language Abstract for KR 2001-0040256 as recited in page 2 of the IDS was not received (Abstract of WO 9917431 was received instead). It has been placed in the application file, but the information referred to therein has not been considered.

Remarks

2. In view of amendments, the Examiner withdraws the objections to the drawings, the rejections under 35 USC 112, second paragraph to claims 1-9. The addition of claims 10-14 has been acknowledged.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leibovich in view of Klode (WO 01/45237).

Regarding claim 1, Leibovich discloses a line start reluctance synchronous motor comprising: a single phase stator arranged at an inner circumferential surface of a

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motor body and on which a main coil and a sub coil are wound (claim 23); and a cage rotor provided with a rotation shaft at a center portion. Leibovich fails to show a magnet unit free-rotatably arranged along an inner circumferential surface of the stator in order to maintain an air gap with the stator.

However, Klode disclose a magnet unit (40 in Fig. 2) free-rotatably arranged along an inner circumferential surface of the stator in order to maintain an air gap with the stator for the purpose of reducing the rotational inertia of an electric motor.

Since Leibovich and Klode are in the same field of endeavor, the purpose disclosed by Klode would have been recognized in the pertinent art of Leibovich.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Leibovich by using a magnet unit free-rotatably arranged along an inner circumferential surface of the stator in order to maintain an air gap with the stator as taught by Klode for the purpose of reducing the rotational inertia of an electric motor.

Allowable Subject Matter

4. Claims 2-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 7, the prior art of record does not show a line start reluctance synchronous motor as described in claim 7 including a number of poles; a plurality of

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cage bars at a peripheral portion thereof; a plurality of first magnetic barriers located at an outer circumferential surface of the cage rotor, the number of the first magnetic barriers being equal to the number of poles of the cage rotor; and a plurality of second magnetic barriers located at an inner side surface of the cage rotor, the number of the second magnetic barriers being equal to the number of poles of the cage rotor.

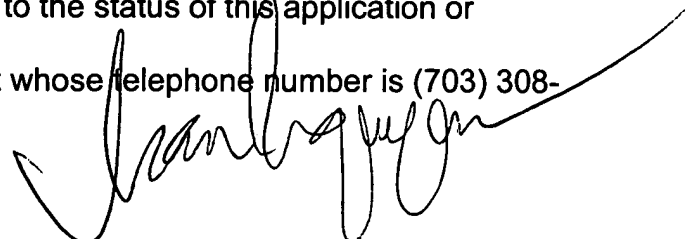
Regarding claim 14, the prior art of record does not show a line start reluctance synchronous motor as described in claim 14 including a number of poles; a plurality of cage bars at a peripheral portion thereof; and a plurality of magnetic barriers, the number of the magnetic barriers being equal to the number of poles of the cage rotor.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (571) 272-2031. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg, can be reached on (571) 272-2044. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.



TRAN NGUYEN
PRIMARY EXAMINER



FIG. 3

Approved by Examiner
HNN

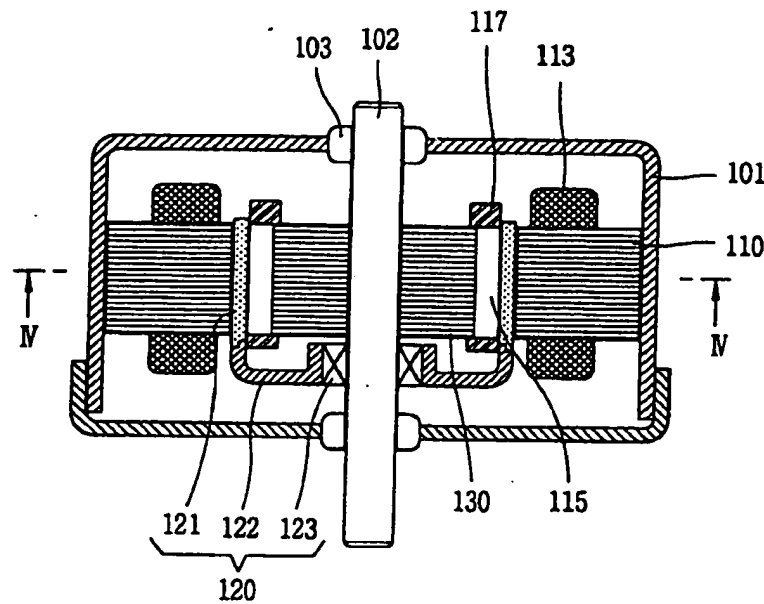


FIG. 4

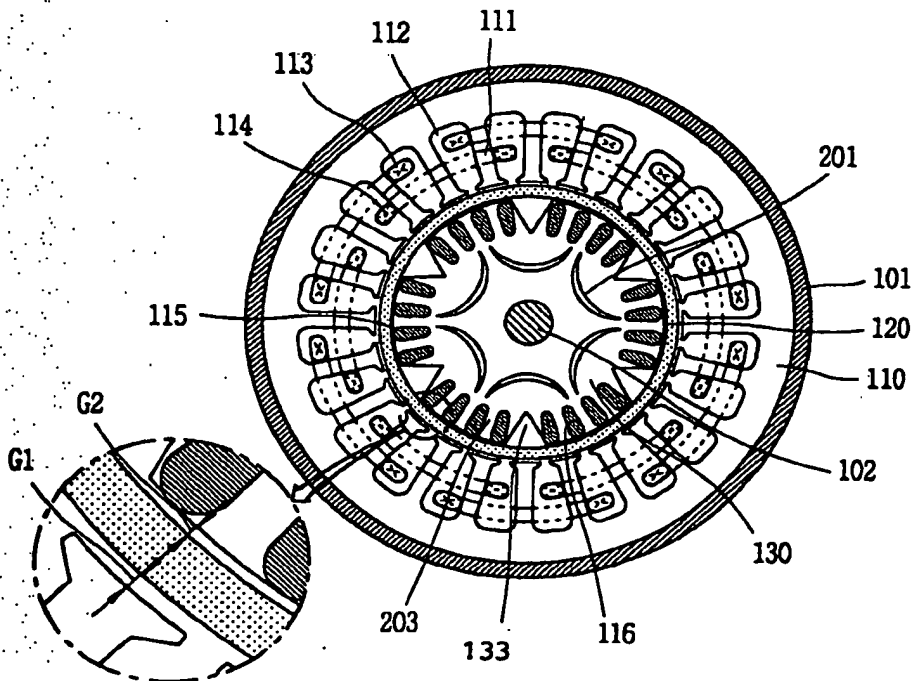


FIG. 5

Approved by Examiner
HN/N

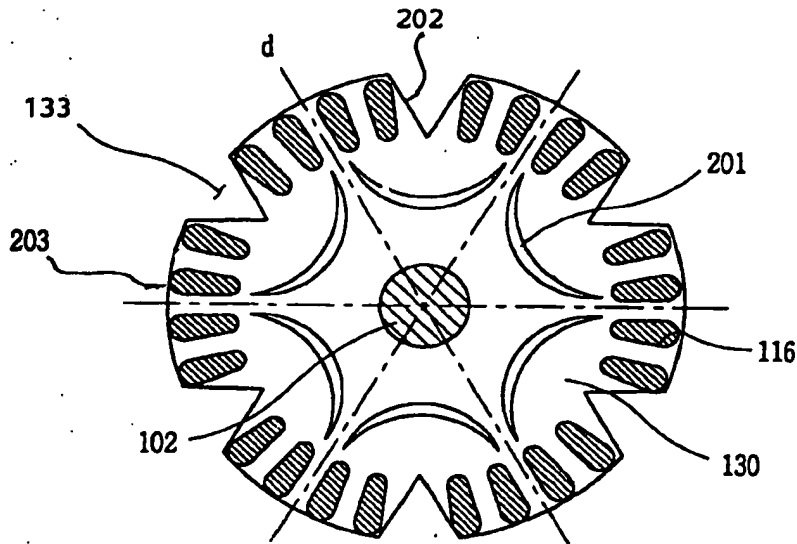


FIG. 6

